humid, with 60 per cent rain

today and 30 per cent tonight.

High today and Tuesday 90,

low tonight 74. Winds variable,

Partly cloudy, hot and

5 to 15 miles per hour.

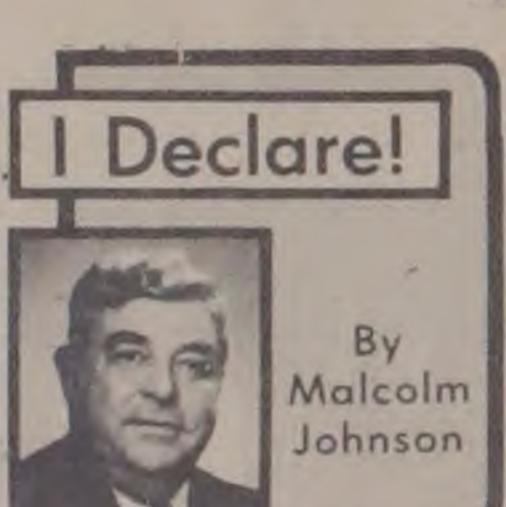
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Associated Press Wirephotos

HIS FIRST STEP ON MOON: Astronaut Neil Armstrong Descends Ladder From Lunar Module



#### Memory Is Excited, Too

Exciting events recall memories, which gave substance to exciting expectations.

There was breathless tension as the fragile bug carrying our men hovered for that first landing on the Moon, and when one took his first cautious step onto that hostile ground.

But we who have lived very long in this century have known such excitement before from human exploits.

(Man always has known it as he awaited such natural events as the birth of a child or some sensational religious experience, some intellectual test or the impact of a vicious storm.)

Today, though, all minds are on the triumph of man in travel through the air, and the magnitude of it is multiplied by the buildup and the focus (Continued on page 12)

#### Save Today's Democrat

Today's Democrat is an historic issue reporting man's first "small step" onto the moon and heralding the "giant leaps" to come.

The four open pages, carrying the news stories, live photos from the moon and the transcript of the moonmen's talk, are designed as a wraparound, to be pulled off the rest

of the paper and saved. These are the first actual newspaper photographs from the moon, not simulations, mock-ups or models. Extra copies of today's Democrat can be ordered by calling 877-6181, or you can pick them up at our service desk.





NEW GLORY FOR OLD GLORY: Moonmen Plant American Flag

## Read About the Moon

Complete Transcript of Moon Conversation	
Armstrong's Parents Say 'Great, Great, Great'	11
Moon Sunday Great, But World Went On	12
World Leaders Give Views on the Future	20

## Paydirt Struck In Moon Rocks

(AP) - The Apollo astronauts struck paydirt in their prospecting on the moon.

Their luck especially was in finding a great variety of different rocks, which could tell much

bringing home.

And they cored out a five-inch deep sample of lunar soil that "looks moist," a suggestion there might be water and so perhaps microscopic life beneath the moon's surface. But the moist, dark appearance could simply be from tight packing of fine particles of material, cautions David Mc-Kay, geologist of the Manned Spacecraft Center.

THEY FOUND the crust of the moon much harder than

SPACE CENTER, Houston numerous geologists and astronomers expected they would. It took work to dig out two core samples and to plant the American flag.

They found rocks that look about the moon's age and ori- like basalt, born of volcanoes, and rocks resembling biotite, a They saw a curious purple dark colored mica that usually rock and perhaps put it in one of contains two to four per cent the two treasure chests they are water. They found the surface dusty, getting their boots coated

cocoa brown with it. They set up a seismometer which soon was recording moon tremors, although these might be only from the footsteps of the astronauts, especially when they cavorted on the desert-like moon like kids in a playground.

#### Chuckle

One of the shortest measurable intervals of time is between the day you set a little extra aside for a sudden emergency and the arrival of a sudden emergency.

## They Blast Docking

Is Next SPACE CENTER. Houston (UPI) -America's two moon pioneers fired the ascent engine on their \$41 million lunar module at 1:53 p.m. EDT today to mark the start of the hazardous return to earth after completing man's first exploration of the moon.

They planned to rendezvous with Michael Collins circling the moon in the Apollo 11 commandship and fly home to a splashdown in the Pacific Ocean Thursday morning.

But no matter what lay ahead, Neil A. Armstrong and Edwin E. Aldrin Jr., already belong to history as the first to set foot on the surface of the moon. In doing so they made a "giant leap for mankind" toward new conquests of the universe. They collected about 80 pounds of lunar stones and dirt for study by scientists on

With millions the world over watching the black and white television pictures they beamed back, Armstrong and Aldrin planted the American flag and explored the gray, alien surface of rocks, rilles, ridges and dust that turned their blue spaceboots cocoa colored.

THEY WERE CALM, deberate and encountered no dificulty during their time outside Eagle - 2 hours and 11 minutes for Armstrong and 29 minutes less than that for

But with half the mission still eft, there was no doubt about he place history would assign

Dr. Thomas Paine, head of the National Aeronautics and Space Administration, said the flight proved the possibility of travel "between the earth and

other bodies." "The heavens have become part of man's world," President Nixon told the astronauts from the White House, 250,000 miles

Television clearly showed

(Continued on page 12)

## On Moon

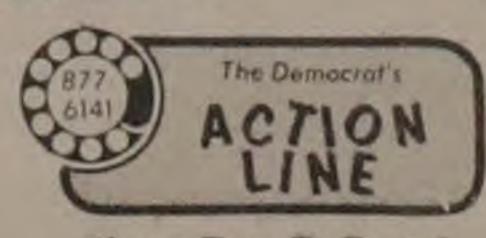
JODRELL BANK, England (AP) - Russia landed Luna 15 on the moon's surface today, 500 miles from where America's Apollo astronauts were preparing to take off on their journey back to earth, Jodrell Bank Observatory reported.

Signals picked up at the giant radio-telescope here indicated that after four days of moon orbit the unmanned probe landed on the moon's Sea of Crises.

The observatory said at 12:45 p.m. Luna 15 was still "dead silent."

#### On Inside Pages

Bridge Comics Crossword Editorial Columns Obituaries 16-18 Sports Television Theaters Want Ads Weather Women's News



Please Turn To Page 3

#### Apollo Schedule 5:11 p.m.-LM and CM

SPACE CENTER, Houston (UPI) - Timetable of main rendezvous and dock. 14-15 events coming up in the flight of Apollo 11, all times EDT and subject to change:

#### Monday

10:32 a.m. EDT-Command

module.

module pilot awakened.

8-9 astronauts awakened to prepare for liftoff from the moon. 1:51 p.m.-Liftoff of ascent

stage of lunar module, boost to intermediate rendezvous. 2:49 p.m.-LM raises orbit tion. for rendezvous with command

9:21 p.m.-LM is jettisoned and abandoned.

#### Tuesday

12:53 a.m. EDT-Command module fires its main engine to 11:32 a.m.-Lunar module break out of moon gravity and start trip homeward.

> 2:32 a.m.-10-hour rest period for astronauts.

3:53 p.m.-Midcourse correc-

8:00 p.m.—Television from

## Complete Transcript of Conversation on the Moon

SPACE CENTER, Houston (AP)— When Astronaut Neil Armstrong stepped off the ladder of the lunar module onto the moon Sunday, his longawaited first words were: "That's one small step for man;

one giant leap for mankind." From then on Armstrong and Buzz Aldrin chatted back and forth and with the Space Center in Houston throughout their walk on the moon's surface. Here is the transcript of the three-way talk:

Armstrong: The, surface is fine and powdery. I can pick it up loosely with my toe. The dirt adhered in fine layers like powdered charcoal to the, uh, to the sole and insides of my boots. I only go in, oh, an eighth of an inch, but I can see footprints of my boots and the treads and the fine, sandy particles.

MC: Neil, this is Houston, we're copying.

Armstrong: There seems to be no difficulty in moving around, as we suspencted. It's even perhaps easier than the simulations of one-sixth G (onesixth gravity) that we performed in various simulations on the ground. No trouble to walk around. Okay, the descent engine did not leave a crater of any size. It's, uh, there's about one foot clearance from the ground. We're essentially on a very level place here. I can see some evidence of rays emanating from the descent engine, but very insignificant amount. Okay, Buzz, we ready to bring down the (other) camera?

Aldrin: I'm all ready. I think it's been all squared away in good shape.

Armstrong: Okay. Aldrin: Have to pay out all the LEC (lunar equipment con-

veyor). Looks like it's coming out nice and evenly. Armstrong: Okay, its quite dark here in the shadow and a

little hard for me to see that I have good footing. I'll work my way over into the sunlight here without looking directly into the Aldrin: Okay...

Aldrin: Say, I think you're pulling the wrong one ..

Armstrong: I'm just...okay, I'm ready to pull it down now. There's still a little left in the.... Aldrin: Okay, don't hold it quite so tight.

Armstrong: Okay. Armstrong: Looking up at the LM, I'm standing directly in the shadow now, looking up at Buzz in the window, and I can see everything quite clearly. The light is sufficiently bright back lighted into the front of the LEM, but everything is very clearly visible...

INTERRUPTION

stalled on the RCU (remote control unit) bracket. Armstrong: Still in the LEC

on the secondary struts ... Aldrin: I'll step out and take some of my first pictures here. MC: Roger, Neil, we're reading you loud and clear, getting

some pictures and the contingency sample. MC: Neil, this is Houston, did

you copy about the contingency sample, over? Armstrong: Roger, gonna get

to that just as soon as we finish these pictures ... Aldrin: Okay, gonna get the

contingency sample? Armstrong: Right. Aldrin: Okay, that's good.

down... It's a little difficult to dig through the crust... Armstrong: It's very interesting. It's a very soft surface. But

Okay the contingency sample is

here and there where I plug with the contingency sample collector I run into very hard surface, but it appears to be very cohesive material of the same sort. Try to get a rock in here. Just a couple. Aldrin: Ah, that looks beauti-

ful from here, Neil. Armstrong: It has a stark

beauty all its own. It's like much of the highest desert of the United States. It's, uh, different, but it's very pretty out here. Be advised that a lot of the rock samples out here, the hard rock samples, have what appear to be vesicles small, thin-walled cavities in the surface. Also I'm looking at one now that appears to have some sort of fenecrest. MC: Houston, roger, out.

ALDRIN: Okay, the handle

is off the . . . it's about oh, six or eight inches into the surface . . . Armstrong: I'm sure I could

push it in further, but it's hard for me to bend down farther than that. You can really throw things a long way up here. Armstrong: That pocket open,

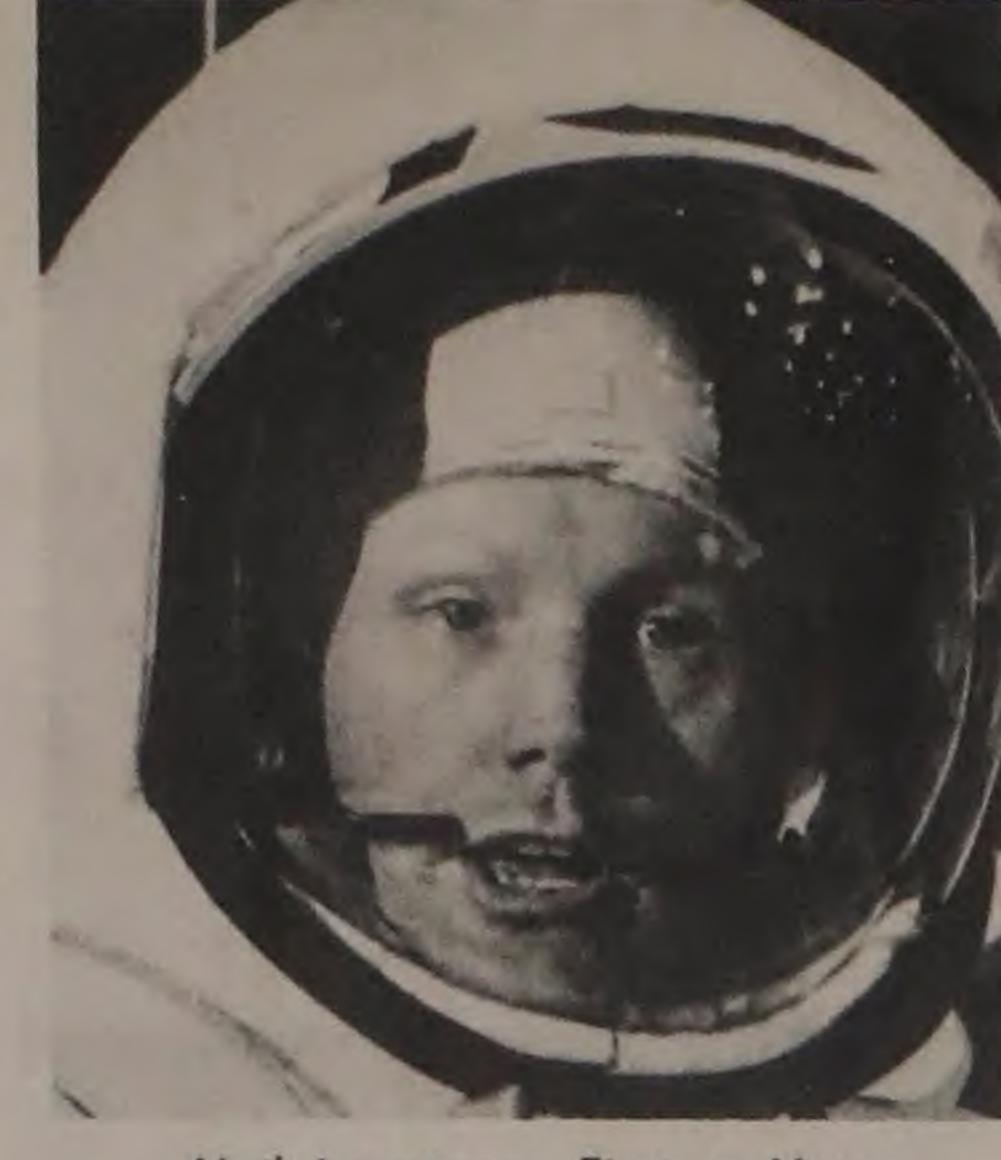
Buzz? Aldrin: Yes, it is. It's not up against your suit though. Hit it back once more. More toward the inside. Okay, that's good. Armstrong: That in the pock-

Aldrin: Yeah, push down. Armstrong: That it? Aldrin: No, it's not all the

way in. Push it. There you go. Armstrong: Contingency sample is in the pocket. I, uh, oxygen is 81 per cent. I'm in minimum flow.

MC: This is Houston. Roger, Neil. Aldrin: Okay.

Aldrin: And I've got eight zero per cent...



Neil Armstrong, First on Moon 'one small step for man. . .'

Armstrong: Are you getting a

TV picture now, Houston. MC: Neil, yes we are getting a picture. You're not in it at the present time. We can see the bag on the LEC being moved by Buzz, though. Here you come into our field of view.

Aldrin: Okay, you read for me to come out?

Armstrong: Just stand by a second, I'll move this over the handrail. Okay? Aldrin: Okay, that's got it. rather easily.

Are you ready? Armstrong: All set. Okay, you saw what difficulties are...I'll

try to watch your ... from underneath here. Aldrin: All right the backup

camera is on. it's clear and okay...there you go, you're clear. And laterally you're good. Got an inch clear-

Aldrin: Okay, you need a little bit of arching of the back to come down...How far are my feet from the edge ..

Armstrong: Okay, you're right at the porch. Aldrin: Now a little, uh, foot movement ... arching of the back.

Armstrong: Looks good. MC: Neil, this is Houston. Based on your camera transfer with the LEC do you foresee any difficulties in the SRC (sample return container)?.

Armstrong: Negative. Aldrin: Now I'm gonna back up and partially close the hatch. Making sure not to lock it on my

way out. Armstrong: A pretty good

Aldrin: It's our home for the couple of hours and we wanta take good care of it.

Aldrin: Okay, I'm on the top step and I can look down over the RCA and ... it's a very simple matter to hop down from one step to the next.

ARMSTRONG: I found it to be very comfortable, and walking is also very comfortable. You take three more steps and

then a long one. Aldrin: I'm going to leave that one foot up there and both hands down to about the fourth

rung up. Armstrong: There you go. Aldrin: Okay, now I think I'll do the same.

Armstrong: Little more. about another inch. There you Aldrin: It's a good step.

Armstrong: Yeah, about a

Aldrin: Beautiful view. Armstrong: Isn't that something? Magnificent sight out

three-footer.

Aldrin: Magnificent desola-Aldrin: Looks like the second-

ary strut had a little thermal effects on it right here, Neil. Armstrong: Yeah, I noticed that. That's the, seems to be the

are on, uh, all around. Aldrin: Very, very fine powder, isn't it?

worst, although similar effects

Armstrong: Isn't this fine? Aldrin: Right in this area I don't think there's much of anything. fine powder hard to tell whether it's a clod or a rock. Armstrong: Now you can pick

it out. Aldrin: Yeah, and it bounces and then...

can see now, to, uh, backwards cable. due to the soft, very soft tex-

Armstrong: Yeah, you're standing on a rock, big rock there now. Aldrin: No crater there at all

from the engine. Armstrong: No.

think that's a good representation of our sideward velocity at touchdown...folded the probe. over on the, uh, the minus "Y"

strut, broken off. Armstrong: Yeah, it did, didn't it. Other two both bent ble?

for the visibility right here with- end of it.

out the visor up . . . Incidentally, these rocks, very powdery

MC: Say again, please, Buzz you're cutting out. Armstrong: And Houston ... Aldrin: I say that the rocks

are rather slippery. MC: Roger. Aldrin: Powdery surface when it's on there, it's filled up all the very little fine pores (of

his suit) ... tend to slide over it

ARMSTRONG: seems quite good .

our area. Aldrin: About to lose my balance in one direction and recov-Armstrong: Okay...looks like ery is quite natural and very easy. And moving our arms right, be better. around doesn't . . . not quite that light footed.

Armstrong: I have the insulation off the MESA (modularized equipment stowage assembly) now and the MESA seems to be it. in good shape.

Aldrin: Have to be careful that you're leaning in the direction you wanta go. Otherwise you... in other words you have to cross your foot over to stay underneath where your center of mass is.

Armstrong: Find a purple MC: Okay, that look's good.

Aldrin: Nope. Very small, sparkly fragments are ... in substance). You don't dig down more than a quarter of an inch (apparently referring to foot-

Armstrong: Okay, Houston, I'm gonna change lenses on you.

MC: Roger, Neil. Armstrong: Okay, Houston,

tell me if you've got a new pic-MC: Neil, this is Houston. That's affirmative. We're getting a new picture. You can tell it's a longer focal length lens. And for your information, all LM systems are go, over.

ARMSTRONG: We appreciate that, thank you.

Aldrin: Neil is now unveiling

the plaque ... MC: Roger, we've got you foresighted but back to one

Armstrong: We haven't read the plaque, we'll read the

plaque that's on the front landing gear of this LM. This is two hemispheres, one showing each of the two hemispheres of earth. Underneath it says: "Here men from the planet earth first set foot upon the moon, July, 1969, AD. They came in peace for all mankind." It has the crew members' signatures and the signature of the President of the United States.

Armstrong: Ready for the camera? I'll get it... Aldrin: I'm afraid these-

.materials ... get dusty. The surface material is, uh, powdery. I don't know how good your lens is but if you can very much like a very finely powdered ... Armstrong: You, uh, pull out

some of my cable for me, Buzz? Aldrin: Houston, how close are you able to get things in fo-

MC: This is Houston. We can see Buzz's right hand. It's some-Aldrin: Reaching down fairly what out of focus. I'd say we easy. Getting my suit dirty at were focusing down to probably, this stage. The mass of the back oh, about eight inches to a foot pack does have some effect behind the position of his .. There's a light tendency, I hand where he's pulling out the

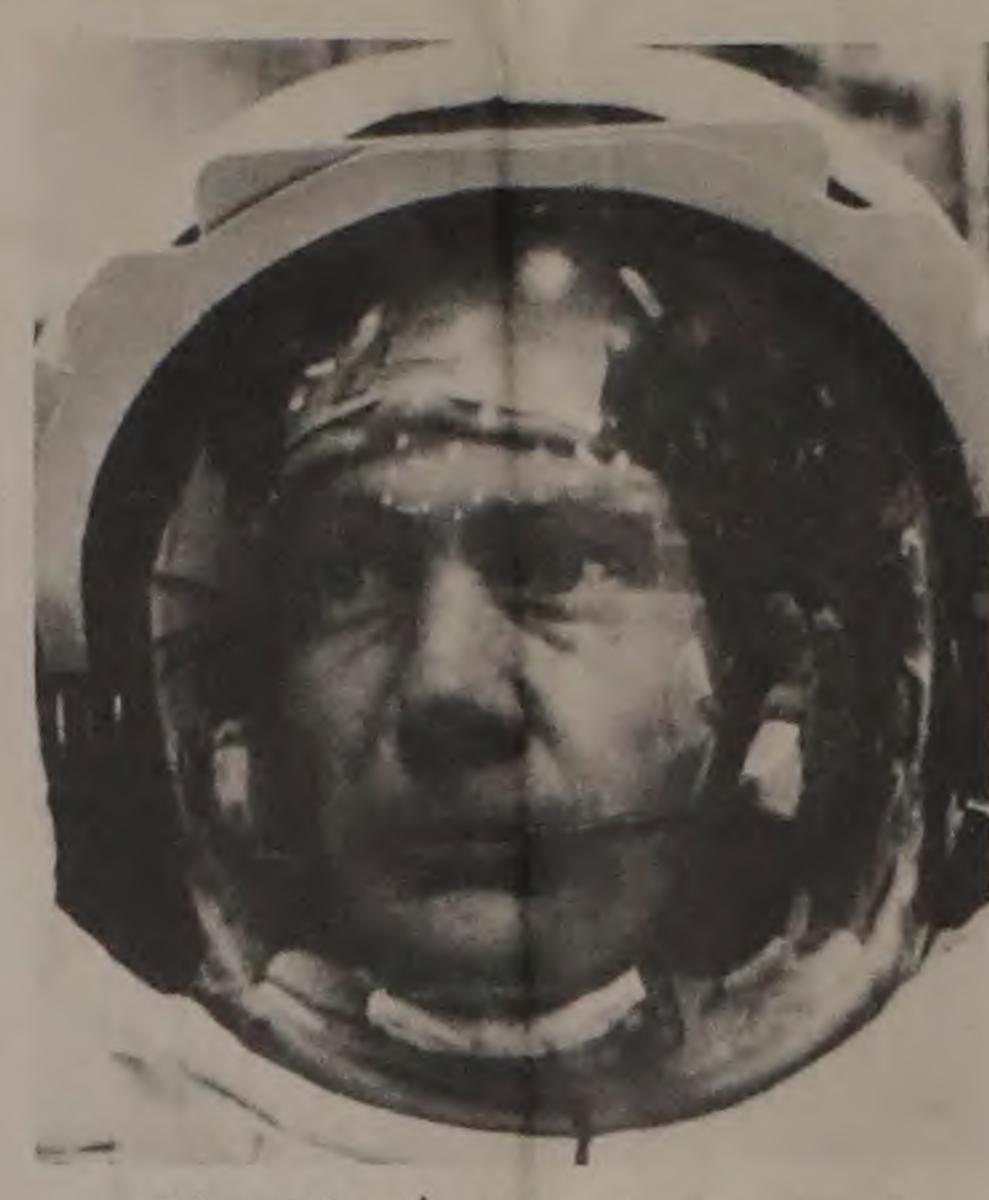
ALDRIN: Okay, how's the

temperature look on there? Armstrong: Temperature of the camera is showing cold.

Aldrin: I'm a little cool, I think I'll change...I'm on in-Aldrin: I wonder if that right termediate, now, Houston, and I under the engine is where- show point seven eight ... seventy .might have hit ... side like that .. four ... and we'll probably need a Armstrong: Yeah, that's, I little ... rotation ... television camera. Neil, look at the minus-...The direction of travel there...Look from right to left. Aldrin: Well, see that probe So this one over here underneath the ascent engine ... Probe first hit...

Armstrong: I got plenty of ca-

Aldrin: You got plenty. Plenty Aldrin: Can't say too much more. Okay, I think I go...the



Edwin 'Buzz' Aldrin Jr. is second . . . he worked hard at lunar tasks

and clear. How's it going?

Collins: Great!

lunar surface.

Aldrin: Okay.

dio check, over.

loud and clear.

they're setting up the flag now.

only person around that doesn't

have TV coverage of the scene.

mind a bit. How's the quality of

MC: Oh, it's beautiful, Mike.

Collins: Oh, gee, that's great.

Is the lighting halfway decent?

pull that end out a little..

straighten that end up a little?

MC: Neil, this is Houston, ra-

Armstrong: Roger, Houston,

Armstrong: Something interesting in the bottom of this little crater here, uh, maybe, u-Aldrin: Keep going, we got,

we got a lot more. Armstrong: Okay. Aldrin: Getting a little harder

to pull out here. Public Information Officer: You stand on the ladder facing forward, the minus "Y" strut is the landing gear to your left. Armstrong:...How far I am,

Aldrin: Forty, 50 feet. Why don't you turn around and let, uh, let them get a view from there and see what the field of view looks like ... You're backing

into the cable... Armstrong: Okay. Aldrin: Turn around to your

Armstrong: I don't want to go into the sun if I can avoid it. Aldrin: That's right, Yeah. Armstrong: I'll just leave itsit like that and walk around

ALDRIN: Houston, how's that field of view gonna be, to pick up the MESA?

MC: Neil, this is Houston. The field of view is okay. We'd like you to aim it a little bit too Aldrin: And, Neil, didn't I say much to the right. Can you we might see some purple bring it back left about four or five degrees?

Armstrong: I haven't stopped to even set it down yet. That's places ... First guess is some the first picture in the panorasort of diotite (a brown mica ma. It's taking about north, northeast. Tell me if you've got

> a picture, Houston. MC: We've got a beautiful picture, Neil.

Armstrong: Okay, I'm gonna MC: Okay, here's another good one. Okay, we got that one. Armstrong: Okay, now this smooth, uh, stop. Switch direcone's right down sun, straight tions, it's like a football parry, west, and I wanta know if you you just have to put out to the

angular rock in the foreground that your forward ability is not and looks like a much smaller quite as good as it is in the rock a couple of inches to the conventional one foot after anleft of it, over.

beyond it about 10 feet is an using now, could get rather tireven larger rock that's very ing after several hundred...but rounded. That rock is about uh, this may be a function of this the closest one to you is sticking suit as well as, uh, lack of gravout of the sand about one foot. ity forces. It's about a foot and a half long and it's about six inches thick. But it's standing on edge. MC: Roger.

Aldrin: Neil, I've got the table out, the bag deployed, MC: We've got this view, ute please?

Neil . . . and we see the shadow of the LM. Armstrong: Roger, the little

hill just beyond the shadow of the LM is a pair of elongated craters, about, uh, well, the pair together is 40 feet long and 20 feet across and they're probably six feet deep. We'll probably get some more work in there later. MC: Roger and we see Buzz going about his work.

ARMSTRONG: How's that

MC: For a final orientation, we'd like it to come left about 5 degrees, over. Uh, back to the right about half as much. Armstrong: Okay.

MC: Okay, that looks good, there, Neil. Armstrong: Okay.

Aldrin: Okay, you can make a mark, Houston, at ... and, incidentally, you can use the shadow that the ... one of these small depressions...two to three inches...I can see exactly what the Surveyor pictures showed when they pushed away a little bit ... through the upper surface of the soil and about 5 or 6 inches... breaks loose ... caked on the surface when in fact it really isn't.

Armstrong: I noticed in thewhere we had footprints nearly an inch deep but the soil is very cohesive and it will retain a slope of probably 70 de-Aldrin: That end come off?

Armstrong: ... the rock here. Aldrin: We'll have to extend that one. MC: COLUMBIA, Columbia.

Collins: Houston, Columbia on the high gain, over.

this is Houston. AOS (acquisi-

tion of signal), over.

Armstrong: Say again, Hous-

MC: Roger, we'd like to get both of you in the field of view of our camera for a minute. Neil, and Buzz, the President of the United States is in his office you're clear now. now and would like to say a few words to you, over.

MC: Go ahead Mr.

MC: Columbia, this is Houston reading you loud and clear. Collins: Yeah, read you loud that you will return safely to MC: Roger, the EVA is pro-

Armstrong: Thank you, Mr. gressing beautifully. I believe President. It's a great honor and privilege for us to be here representing not only the MC: I guess you're about the United States but men of peace of all nations and with interest and a curiosity and men with Collins: Roger, and I, don't a vision for the future. It's an honor for us to be able to participate here today.

President Nixon: And thank you very much and I look forward, all of us look forward, to seeing you on the Hornet

MC: Yes, indeed. They've got the flag up now, and you can Aldrin: Look forward to that see the stars and stripes on the very much, sir. Collins: Beautiful! Just beau-

this is Houston, over. Collins: Loud and clear, Armstrong: See if you can Houston.

MC: Roger, I got a P22, Landmark ID, LM, T1, reads series of numbers . . . three miles south. Time of closest approach reads more numbers

Collins: Roger, thank you

MC: Roger, out. Aldrin: Loud and clear, Hous-MC: Roger, Buzz. Aldrin: I'd just like to evaluate the various paces that a person can...traveling on the lunar

surface. I believe I'm of your field of view, is that right, Housthe same angle of departure MC: That's affirmative, Buzz. and velocity. Where I stand You're in our field of view now. Aldrin: All All right. You do have to be rather careful, uh, to keep track of where your center of mass is. Some times it takes about two or three paces to MC: Roger, Buzz, and make sure that, uh, you've got Columbia, this is Houston, your feet underneath you. About when you track out of high two to three or maybe four easy paces can bring you to a fairly

can see an angular rock in the side and tread a little bit. Aldrin: So-called Kangaroo MC: Roger we have a large, Hop. Does work but it seems other. Or saying what a main Armstrong: All right, and on pace might be, the one that I'm

> MC: TRANQUILITY base, this is Houston. Can we get both of you on the camera for a min-

over this way.

President, this is Houston out. President Nixon: Hello, Neil and Buzz, I'm talking to you by telephone from the Oval Room at the White House. And this certainly has to be the most historic telephone callever made. I just can't tell you how proud we all are of cles. what you've done. For every American this has to be the proudest day of our lives. And for people all over the world, I am sure they too join with America in recognizing what an immense feat this is. Because of what you have done, the heavens have become a part of man's world. And as you talk to us from the Sea of Tranquility, it inspires us to redouble our efforts to bring peace and tranquility to earth. For one priceless moment in the whole history of man, all the people on this earth are truly one - and in their pride in what you have done, and one in our prayers

on Thursday.

MC: Columbia, Columbia,

and directions.

ALDRIN: Uh, Houston, it's very interesting to note that when I uh, kick my foot no atmosphere here and this gravity . . . they seem to leave and most of them have about

. . large portion of them will impact at a certain distance out . . . highly dependable on initial trajectory upward

gain antenna limits, request omni delta, omni delta, over. Aldrin: I've noticed several times in going from the sunlight into shadows that just as they go in, there's an additional reflection off the LM, that along with the reflection off my face onto the visor makes visibility very poor, it's just in the transition, sunlight into the shadow.

Aldrin: I eventually have so much glare coming onto my visor . . . then it takes a short ter while for my eyes to adapt . lighting conditions. Visibility as we said before is not too great but with both visors up . . . sort of footprints we have and the condition of the soil. Then after being out in the sunlight for awhile it takes - watch it. Neil, Neil you're on the cable.

Armstrong: Okay.

Aldrin: Yeah, pick up your right foot. Right foot. It's still, your toe is still hooked in it. Armstrong: That one?

Aldrin: Yeah, it's still hooked in it. Wait a minute. Okay,

Armstrong: Thank you. Aldrin: Now let's move that

my boots has completely disapdon't know exactly what color to seven eight. describe this other than grayish-cocoa color. Appears to be covering most of the whiter part of the boot . . . very fine parti-

\* \* \* MC: BUZZ, this is Houston, you're cutting out on the end of MC: Houston, Roger out.

your transmissions can you speak a little more closely into

your microphone, over. Aldrin: Roger, I'll try that. MC: Beautiful!

Aldrin: Well, I had that one inside my mouth that time. MC: Sounded a little wet. Aldrin: In general, time spent in the shadow doesn't seem to have any thermal effects . . . inside our suit. There is a differ-

feel little cooler in the shadow than in the sun. MC: Columbia, this is Hous-

ton, over. MC: Columbia, this is Houston, over. Columbia, this is Houston, over.

Collins: Houston, Columbia, on delta.

MC: Roger, you should have VHF AOS with the LM right about now. VHF LOS (loss of signal) will be at four zero minutes, one five seconds, over.

Collins: Thank you. Armstrong: When I look around the area, the contrast in general is, uh, completely by virtue of the . . . very light colored gray, light gray colored, with a halo around my own shadow, around the helmet of my helmet. Then as I look across . . . surrounding colors still fairly light as you look down into the sun . . . general color darker than . . . contrast is

not as great. Surveying the dusty area that we've picked up, considerably darker in texture . . . picked up one . . . imagine this has been. . . .

ALDRIN: . . . right in this area there are two craters. The one that's right in front of me now as I look off at about the 11 o'clock position from the spacecraft, about 30 to 35 feet across. Several rocks and boulders six or eight inches across ... many

Aldrin: I'm now in the area of the Minus "Y" strut . . . take some photographs. . . . Aldrin: How's the bulk sam-

ple coming, Neil? Armstrong: Bulk sample is 15 Collins: Houston, Columbia.

ton, go ahead.

Collins: Roger, no marks on the LM that time. I did see a suspicously small white object... MC: Go ahead with the coor-

dinates on the small white ob-

Collins: (after reading series of numbers) . . . right on the southwest rim of a crater. think they would know it if they were in such a location. It looks like . . . southwest wall of a cra-

Aldrin: The, uh, reflector that's mounted on Quad One seems a good bit . . . .

MC: You're breaking up again, Buzz. Aldrin: I say the jet deflector that's mounted on Quad 4, the surface of it seems to be more

wrinkled than the one that's on

Quad One.

Generally, underneath part of the LM seems to have stood up quite well ... take some pictures in the aft part of the LM ... illuminate the thermal ef-

fects much better than we could get them up here in the front. MC: Roger out.

Aldrin: Wanta get some particular photographs of the bulk Aldrin: The, uh, blue color of sampler area, Neil.

Aldrin: And Houston, Buzz peared now into this, oh, we here, I'm showing three point

ARMSTRONG: Roger and Neil has 66 per cent O2 (oxygen), no flags, minimum tooling on the suit pressure is three, eight,

MC: Buzz, this is Houston. Have you removed the closeup camera from the MESA yet,

Aldrin: Negative, thank you. Aldrin: Houston, how does our time line appear to be going? MC: Roger, it looks like

you're about a half hour slow on it, we're working on consumables, over. Aldrin: All right. ence of course in the ... radia-MC: Neil and Buzz, this is tion in the helmet . . . so . . .

Houston. To clarify my last, your consumables are in good shape at this time. The 30-minute reference was with respect to the nominal time line, over. Aldrin: Roger, I understand Aldrin: No abnormalities in the LM, uh, quads seem to be in

good shape, the primary and

secondary ... good shape, antennas are all in place, no evidence of problem underneath the LM due to engine exhaust or drainage of any kind. MC: Roger out. Aldrin: It's very surprising, the, uh, very surprising lack of penetration of all four of the footpads. If we were to try and determine just how far below

or three inches, Wouldn't you say, Neil? Armstrong: At the most, yeah. Pad there is probably

the surface they would have pe-

netrated, you'd measure it two

even less than that. Aldrin: I got a picture of the Plus "Y" strut taken from the descent stage and I think we'll be able to see a little bit better what the thermal effects are. Seem to be quite minimal. This one picture I'm taking now is of the right rear of the spacecraft, looking at the skirts of the descent stage . . . a slight darkening of the surface cover. A rather minimal amount of radiating or etching away or erosion of the surface. On descent, both of us remarked that we could see a

forehand that we would probably see an outgassing from the surface after actual engine shutdown, but I recall I was unable to verify that.

large amount of very fine dust

Aldrin: It was reported be-

particles moving out.

Aldrin: Just too big an angle, MC: Columbia, this is Hous-Armstrong: Yep, I think you're right.

Aldrin: We're back at the Mi-

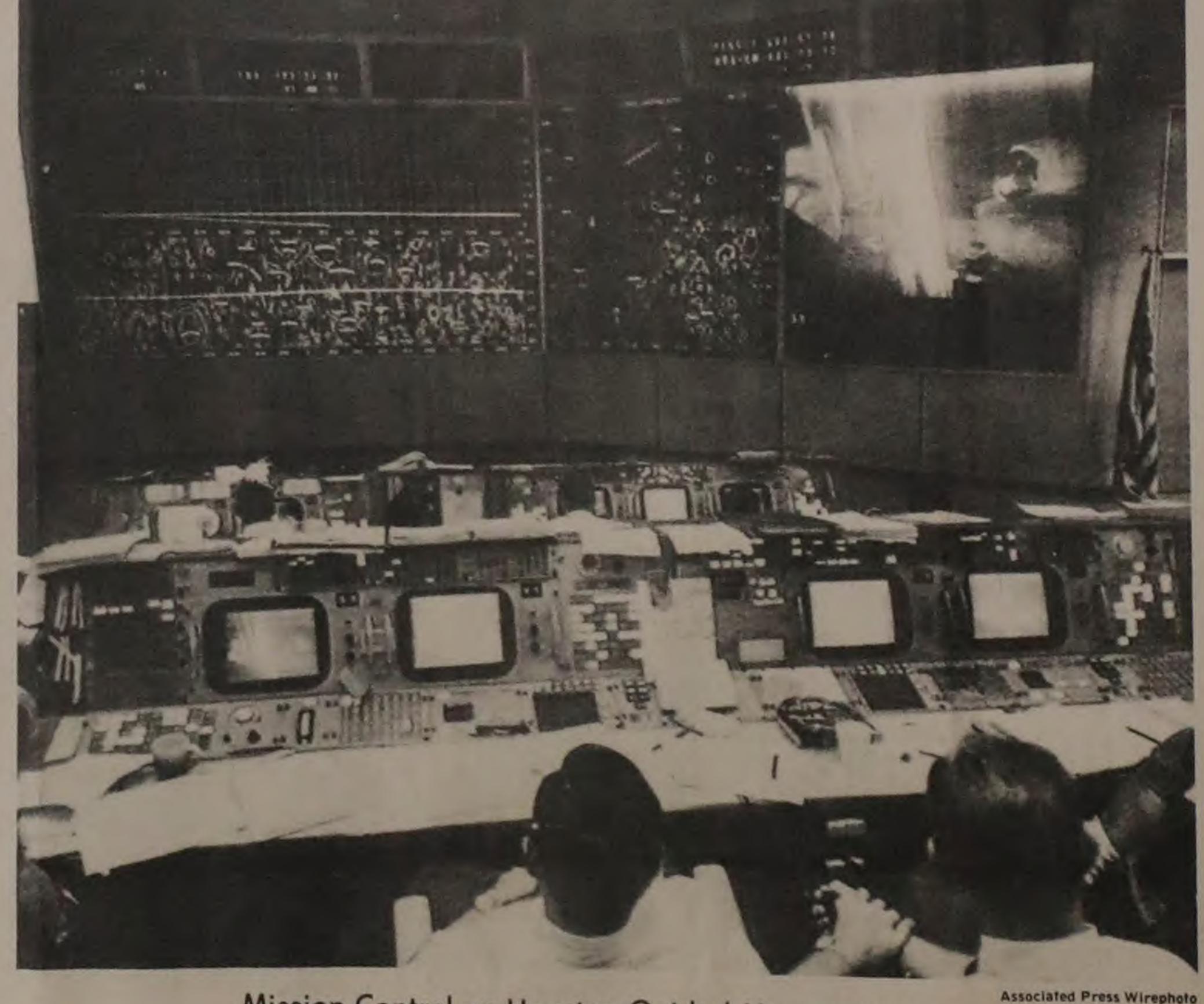
nus "Z" strut, now . . . very little force of impact that we actually had. And Neil, if you'll take the camera, I'll, uh, work on the ... MC: Columbia, Columbia, this

is Houston.

ALDRIN: . . . stop and take a photograph of something and then once start moving again sideways, have a tendency to start doing it with gradual sideways hops . . . can you see us underneath the, uh, LEM over the SEQ (scientific experiments

to be left on the moon) bay, MC: Yes, indeed, Buzz, we

(Continued on page 11)



Mission Control on Houston Guided Men on Moon . . . astronauts chat back and forth with experts in space center



Scientific Chores Performed on Lunar Surface . . . Buzz Aldrin, left, and Neil Armstrong at work

## Transcript of Moon Conversation

(Continued from page 2)

can see your feet sticking out underneath the structure of the LEM descent stage.

MC: And now we can see you through the structure of the . . . secondary strut.

MC: Columbia, Columbia, we're about to lose you on the omni, request high gain antenna, react mode . . . .

Collins: We're already locked up on the high gain, Houston. Aldrin: Houston, the passive

seisometer's been deployed manually. MC: Roger.

Aldrin: And the manual deployment of the LRR (laser ranging retro reflector) that's a little spring at the end of the string, pulled off the pin. However, I was able to reach up and get hold of the pin and pull it loose. So it'll be deployed manually also.

MC: Roger.

Armstrong: And the panorama is complete. The LM, not the LM, pivoted in 7:30 position at about 60 feet.

Aldrin: The doors are closed and locked.

MC: Have you got us a good area picked out? Armstrong: Well, I think right out on that rise out there is as

good as any. Armstrong: Probably you can

- stay on the high ground there Aldrin: Watch it. The edge of

that crater is soft. Armstrong: Yeah, it's pretty

soft there isn't it? Aldrin: I got a couple of

closeups on these quite rounded large boulders. Armstrong: About 40 feet out,

I'd say out to the end of that

Aldrin: It's going to be a little difficult to find a good level spot Armstrong: Top of that next

little ridge there might be a pretty good place. Aldrin: Hey, how'bout I put

the LRRR right about here? Armstrong: All right. Aldrin: I'm going to have to

get on the other side of this rock Armstrong: I would go right

around that crater to the left there. Isn't that a level spot there?

Aldrin: I think this right here is just as level. Armstrong: Okay.

ARMSTRONG: These boulders look like basalt. They have probably two per cent white minerals in 'em, white crystals, and the thing that I reported as the viscular before, I don't believe that anymore. I think it's small craters. They look like little impact craters where BB

shot has hit the surface. Aldrin: Houston, I have the seismic experiment flipped over now . . . and I'm having a little bit of difficulty getting the bubble in the center. It wants to move around and around on the

outside . . . MC: You're cutting out again,

Buzz. Aldrin: Roger. I say I'm not having too much success in leveling the PSE (passive seismic experiment) experiment.

Armstrong: The . . . deflector is installed and the bubble level and alignment appears to be

Aldrin: Hey, you want to take a look at this BB (bubble) and see what you make in on it? Armstrong: I found it pretty

hard to get it particularly level, Aldrin: That BB likes the outside. It won't go on the inside.

Aldrin: That little compass is

convex now instead of concave. Armstrong: I think you're

Aldrin: I believe it is.

Armstrong: Houston, I don't think there's any hope of using this leveling device to come up with an accurate level. It looks to me as though the cup here that the BB is in is now convex instead of concave. Over.

MC: Roger, 11. Press on. If you think it looks level by eyeball, go ahead.

Armstrong: Okay . . . okay, Armstrong: Good work. Hey, hey whoa, stop, stop. Back up.

Aldrin: Houston, as I was spacing the PSE the right hand solar ray deployed automatically. The left hand I had to manually at the far end. And all parts of the solar ray are clear of the ground now.

MC: The boys at Houston understand you did successfully deploy both solar rays, over. Armstrong: Roger, that's af-

firmative. Aldrin: There isn't any way of telling whether that's lined up

-not getting in the way, maybe I could get down here . . .

MC: Neil, this is Houston,

Armstrong: Go ahead, Hous-

MC: Roger, we've been looking at your consumables and you're in good shape. Subject to your concurrents, we'd like to extend the duration of the EVA (moonwalk) 15 minutes from nominal. We will still give Buzz a hack at 10 minutes for heading in. Your current elapsed time is two plus 12 (2 hours, 12

minutes), over. Okay, that Armstrong:

sounds fine. MC: Roger, out.

MC: This is Houston. If you're still in the vicinity of the PSE could you get a photograph of the ball level? Over. Armstrong: "I'll, I'll do that,

Buzz. Right. We'll get a photograph of that. Aldrin: Houston, what time

would you estimate we could allow for the documented sample?

Armstrong: Oh, shoot. Would you believe the ball is right in the middle now?

MC: Wonderful. Take a picture before it moves. MC: Neil, this is Houston. We're estimating about 10 min-

utes for the document sampling.

MC: COLUMBIA, Columbia,

is Houston, over. Collins: Go ahead, Houston. MC: I'd like you to terminate charging battery Bravo at 111

plus 15, over. Collins: How about right now? MC: Roger.

MC: Buzz, this is Houston. ly. You've got about 10 minutes left stick this in my pocket, Neil, now prior to commencing your EVA activities. Over.

Aldrin: Roger, Lunderstand. MC: Tranquility Base, this is Houston. The Passive Seismic go. Experiment has been engaged and we're observing short periods in it, over.

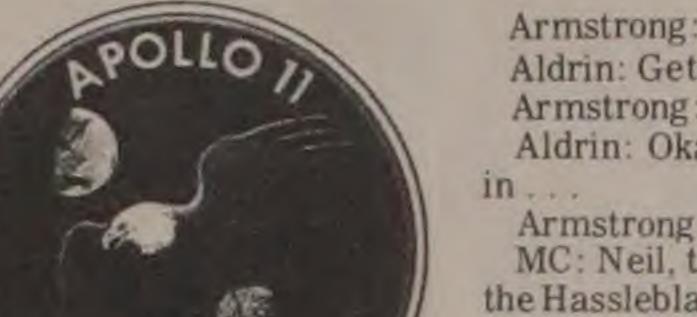
Armstrong: I hope you're Amigo. watching how hard I have to hit this into the ground, to the tune of about 5 inches, Houston.

MC: Roger. Aldrin: It almost looks wet. Armstrong: Got a sample . . . uh, wait a minute, wait a minute, wait a minute . . . in cable Neil?

Aldrin: That clear. Armstrong: Not quite.

MC: Neil, this is Houston. We'd like you all to get two core tubes and the solar window experiment-two core tubes and the solar window, over. Armstrong: Roger.

Armstrong: Right.



Aldrin: Getting the next one maybe you can bend away the blocks a little bit.

care of it. MC: Buzz, this is Houston. You have approximately 3 minutes until you must commence your EVA terminate activities,

Aldrin: Roger, understand. MC: Columbia, this is Houston, approximately 1 minute to

Collins: Columbia, Roger. MC: And do you plan on commencing your sleep on the back side of this pass? If so, we'll disable uplink to you while we're talking to the LM, over.

Collins: Negative, that. Aldrin: Houston, were you able to record documentary wave where two samples were taken?

MC: Negative.

MC: NEIL, this is Houston. After you've got the core tubes and the solar wind, anything else that you can throw into the box would be acceptable.

Armstrong: Righto. Armstrong: I got the cap.

Aldrin: You got the cap? Armstrong: They're both good caps . . . and you want to pick

up some stuff and I'll get . . the solar wind experiment. MC: Buzz, this is Houston. It's about time for you to start your EVA closeout activities.

Aldrin: Roger. MC: Neil and Buzz, this is Houston. I'd like to remind you of the closeup camera magazine

before you start up the ladder, Aldrin: Okay . . .

Armstrong: That close-up camera is underneath the MESA (modularized equipment storage assembly). I'll have to pick it up with the tongs. I'm picking up several pieces of really visicular rock right now.

Aldrin: You didn't get anything in those environmental samples, did you? Armstrong: Not yet.

Aldrin: I don't think we'll have time. MC: Roger, Neil and Buzz.

Let's press on with the close-up camera magazine and closing out of the sample. We're running a little low on time. Armstrong: Roger.

Aldrin: Okay, Can you quick-

and I'll head on up the ladder. Aldrin: I'll hold it and you

open the pocket up. Aldrin: Okay, let the pocket

Armstrong: About clear? Aldrin: Got it. Armstrong: Okay. Adios. Aldrin: Anything more before

I head up, Bruce? (Bruce Mc-

Candless, ground communica-MC: Negative. Head on up the ladder, Buzz. Aldrin: How you coming,

Armstrong: Okay. Aldrin: Did you get that solar wind over there?

Okay. Aldrin: Think you can reach and I'll get the hatch. the rope hanging over here? You might entertain the idea of closed and latched. And everysending up the second one that thing is secure. way.

Armstrong: Okay. Aldrin: Get the film off it. Armstrong: I will. Aldrin: Okay, I'm heading on

Armstrong: Okay. MC: Neil, this is Houston. Did the Hassleblad (camera) magazine go off on that sample re-

turn container? Armstrong: I've got the Hassleblad magazine hooked to the SRC (sample return container) now, yeah.

MC: Roger. Armstrong: How you doing,

Armstrong: Yeah, I'll take Aldrin: I'm okay. Aldrin: You about ready to be sending up the LEC (lunar equipment conveyor)?

> Armstrong: Yeah, just about. Aldrin: Okay, that's got it Armstrong: Uh, oh. The cam-

era came off. I mean the film

Armstrong: While you're get-

Armstrong: Okay, stand by a

Request an EMU (extravehi-

cular mobility unit) check over.

got 54 on the 02 and no flags.

remain in good shape, out.

Armstrong: Roger.

Aldrin: Okay. Good.

looks like down here.

Armstrong: . . . I got e.8 and 8

MC: Neil and Buzz, for your

Aldrin: How you coming,

one side hooked up in the second

box and I've got the film bag

Armstrong: Boy that ... on

Armstrong: That's what it

Aldrin: I think my watch

stopped, Neil. Nah, it didn't ei-

ther. If you can just kind of hold

give it to you to go away in just

a second. Yeah a little more.

package out of your . . . got it.

Armstrong: Uh Buzz?

Aldrin: Ok. Turn loose.

Aldrin: No.

I'll pick it up.

Aldrin: Got it now.

Armstrong: Okay.

Aldrin: Okay?

mented samples.

bumping now.

little bit.

MC: Well done. Out.

Armstrong: I think so.

MC: Neil, this is Houston. Did

got about I'd say 20 pounds of

carefully selected if not docu-

Aldrin: Start arching your

back. That's good. Plenty of

room. Arch your back a little.

Move your head. Right just a

ittle bit. You're in good shape.

Armstrong: Thank you. I'm

Aldrin: No you're clear.

You're rubbing up against me a

Aldrin: That's right. Left.

Armstrong: Okay.

it, I think I can do the pulling.

ment. Let me move back.

the LEC is kind of falling all

over me while I'm doing this.

Aldrin: All that soot, huh.

information, your consumables

camera.

problem.

pack came off. Aldrin: Ok, just ease 'er down now. Don't pull so hard on her. All right, let 'er go.

ting that. I've got to get this share this great moment." Aldrin: Okay, this one's in. No

> historic moment. Like people around the world,

Nixon watched the television screen intently to see man's MC: NEIL, this Houston. first step on the moon.

"It's an unbelieveable thing -fantastic," he was quoted as saying at the moment Arm-

strong put foot on the moon. Ziegler and Astronaut Frank Borman, presidential adviser for the mission, met with newsmen just after midnight to go into more details how Nixon kept in touch with activities on Armstrong: Okay, I've got

> "He was amazed at the agility of the astronauts in floating around on the surface," Borman said of the President.

> He said he thought the moon landing and the operations on the lunar surface had been so successful because there had been no major surprises.

> Borman was with the chief executive starting from the time the astronauts were preparing to step from their spacecraft onto the moon's surface, outlin-

Armstrong: Stand by a moing the procedures. Aldrin: Okay. Easy. Easy in the hatch now. Okay, I can get it the rest of the way. And I'll Armstrong: How about that was chief executive.

Armstrong: Okay. I'll get it. Mars would be next.

But any decision on that will you get the Hassleblac maga-Armstrong: Yes I did. And we

Asked what he thought would be the next big step in space, Borman said he thought it should be the development of a permanent, orbiting, large space station that would provide a base for going beyond the

day that the United States should continue an ambitious space program. "America must go on to

The vice president's suggestion last week that Mars should Aldrin: Okay. The hatch is be the next space goal drew mixed reation.

## Vietnam Gls Join World To Follow Men on Moon

nor did North Vietnam or North

At the Jodrell Bank radio ob-

servatory, Sir Bernard Lovell,

Britain's leading space expert,

stopped tracking the progress of

the Soviet craft Luna 15 over

the moon to watch Armstrong.

amazement," Lovell said.

"There is nothing more I can

say than that it is absolutely

fantastic. One can scarcely be-

lieve it is taking place as one

Crowds in front of TV screens

at Paris sidewalk cafes and

bars in Rome cheered as Arm-

strong bounded over the moon's

surface and Buzz Aldrin began

THERE WAS no word from

"I'm just speechless with

gar Square.

sees it."

his descent.

and a new destiny."

"It's like a dream, although I

One Yugoslav teen-ager

sounded a dissent: "They have

stolen the romance out of the

moon and it will never be the

same again. Now the moon is

In arctic Norway where the

By Democrat Services

Thousands of American troops interrupted their war chores at midmorning today to hear the broadcast of the two U. S. astronauts walking on the moon.

But a spokesman for the U. S. Command said he didn't think Gen. Creighton W. Abrams, U. S. commander in Vietnam, took time out from running the war to listen to Armed Forces Radio "but everybody else did."

Laplanders pasturing their reindeer listened on transistor radios. Japanese stayed up all night to watch on television. Millions around the world hung on every work from the two U. S. astronauts walking on the moon.

In some countries many remained unaware. Communist China, with one quarter of the world's population, did not

### Nixon Shares U.S. Joy

WASHINGTON (AP) - After a super long distance call to tell America's men on the moon tional holiday, and the bells of "how proud we all are," Presi- hundreds of churches pealed dent Nixon phoned Mamie Ei- during the walk. A Japanese senhower and former President girl in Tokyo said as she Lyndon B. Johnson to share his watched a streetside monitor, jubilation with them.

"This certainly has to be the know it's not a dream." most historic telephone call ever made from the White House," Nixon told astronauts Neil Armstrong and Edwin E. "Buzz" Aldrin Jr.

real, and lovers won't have it Millions of television viewers for themselves alone anymore." saw Sunday night's telephone conversation through a split picmidnight sun kept skies bright ture showing both the President through the night, Laplanders and astronauts.

sat around their campfires com-"For one priceless moment in posing sing-song folk poems the whole history of man all of the people on this earth are trutened to their transistors. ly one," Nixon said during his brief message congratulating the astronauts.

After talking with the astronauts, Nixon called Mrs. Eisenhower at the nearby White House mansion where she is visiting. He disclosed that the widow of the late President Dwight D. Eisenhower had commented earlier that "somebody up there is looking at them too"-referring to the late Gen. Eisenhow-

Nixon telephoned Johnson at

his Texas home. White House Press Secretary Ronald L. Ziegler told reporters the President informed Johnson that "I thought we ought to

Johnson told Nixon, Ziegler said, he had been following the Apollo 11 activities all day and appreciated Nixon's call at the

lunar walk.

the moon.

There was some discussion of the future of the space program earlier in the day, Borman reported. He said the President told him he could quote him as saying, "He's an activist in space," and would have a vital space program as long as he

He said, too, that Nixon was aware of statements by Vice President Spiro T. Agnew that

be up to Nixon, the astronaut said, after he receives a report, due about Sept. 1, from a special task force he set up to assess the future of the space pro-

moon. Agnew, head of the Space Council, restated his belief Sun-

greater conquests in the heavens," he said in a CBS television interview. Armstrong: Move your foot

without fanfare, but many Rusbroadcast news about Apollo 11, sians undoubtedly stayed up to listen to Western broadcasts

about the exploration. As Neil A. Armstrong's boots Pravda, the Soviet Union's scuffed the lunar dust, it was leading newspaper, gave the just before sunrise in most of U.S. moon triumph only a small Europe and a crowd of 2,000 still headline above a small story clustered around a giant televinear the bottom of the front sion screen in London's Trafalpage.

> In a more prominent place at the top of the page was a larger story on the shift of Luna 15, the unmanned Soviet spacecraft, closer to the moon. Pravda still gave no hint what Luna 15's mission was. In the war-torn Middle East Cairo Radio broadcast news

viewing Sunday's fierce air battle with Israel. One night club owner in Beirut stopped a striptease act to tell the audience, "We've made

about the first steps before re-

In Australia it was lunchtime when the astronauts stepped onto the moon. From the cities to the lonely cattle stations in the moon-like Outback, Australians regarded the lunar explorathe Vatican on whether Pope tion with awe. Australian news-Paul VI stayed up to watch the papers highlighted their "kanwalk, but when the astronauts garoo" movements.

landed the 71-year-old pontiff An estimated 14,000 persons hailed them as "conquerors of gathered in Malaysia's National the moon." He said man faces Museum to hear a broadcast of "the expanse of endless space the moon walk and see a lunar For many people in the Asian In Venezuela, today is a na-

> subcontinent and Africa, the Voice of America broadcast was the only means of hearing about the two astronauts. When Eagle landed, usually busy nighttime streets in Spain

and Portugal were deserted as

people stayed close to their tele-

\* \* \* THOUSANDS of Europeans without TV sets spent the night at friends' houses to follow the

In Fife, Scotland, a boy born Sunday night was to be named Neil Edwin Michael—the second child in Britain to be named aftabout the astronauts as they liser all three astronauts.

lunar adventure.

On British television Sunday Poles jammed the lobby of the night David Threlfall, who bet U.S. Embassy in Warsaw while \$24 five years ago that man hundreds applauded outside. So- would set foot on the moon beviet media reported the landing fore 1971, received a check for United States."

\$24,000 even though Armstrong hadn't left the lunar module yet.

A spokesman for the London bookmaker William Hill, with whomThrelfall placed the bet at 1,000-1 odds when he was 26, said the touchdown was "good enough for us."

As newspapers prepared special editions with huge headlines, world leaders went on television to express their admiration and sent congratulatory

cables to President Nixon. Prime Minister Harold Wilson of Britain called it a "most historic scientific achievement in the history of man" and told his audience: "Above all we must pay tribute to the heroism and fortitude of the men who are out there and to the men who have gone before them."

President Guiseppe Saragatof

Italy said: "Of all the senti-

ments that stir us, gratitude toward the American people dominates, that people formed by innumerable immigrants from every country, that has given humanity so great a victory." Indian Prime Minister Indira Gandhi said: "The moment of triumph and achievement is

also a moment of humility and self-search . . . Let us direct this power of man which soars starward into strengthening the bonds of peace and brotherhood on earth."

Not all the reaction was fa-

In Havana, where the Voice of America broadcast went unjammed, one Cuban industrial worker, Luis Sosacotilla, 43, said: "Their experiment does nothing to benefit humanity." He said the money should have been used to wipe out poverty and misery in the United States, a reflection of the government

view on Apollo. In Montreal, a student nurse, Georgina D'Eustachio, said: "I think it's frightening. Man has advanced too far scientifically ... there are too many prob-

lems at home." Klaus Bahnke, president of West Germany's Radical Socialist German Students Federation, said he and his colleagues were avoiding the news "because they are only trying to cover up the real goals of the

## Neil Armstrong's Parents Feel 'Great, Great, Great'

WAPAKONETA, Ohio (AP) -"Great! Great! Great!" That's the way the happy, proud parents of Neil Armstrong felt about their son's his-

toric steps on the moon. "We could tell he was pleased and tickled," Mrs. Viola Armstrong said early today.

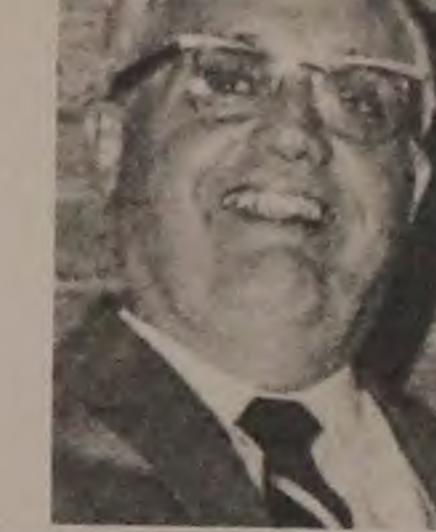
"It was the same old Neil," Stephen Armstrong said. The parents said they were thrilled that President Nixon talked with Neil and fellow

Apollo 11 astronaut Edwin Ald-"It was nice, timely for the President to call when they

were on the moon," the senior Armstrong said. joined the Armstrongs and Neil's grandmother, Mrs. William Korspeter, in watching the

peared on the television screen.

strong said as her son first ap- moon.



Stephen Armstrong

fun," she said later as Neil Herman Weber, pastor of the Hornet.

Neil's father About nine personal friends bounded across the screen. A spokesman for the National Aeronautics and Space Administration said most of the discus-

sion concerned Neil's first "There he is," Mrs. Arm- words as he stepped on the "It was really thought pro-



Mrs. Armstrong . . . Neil's mother

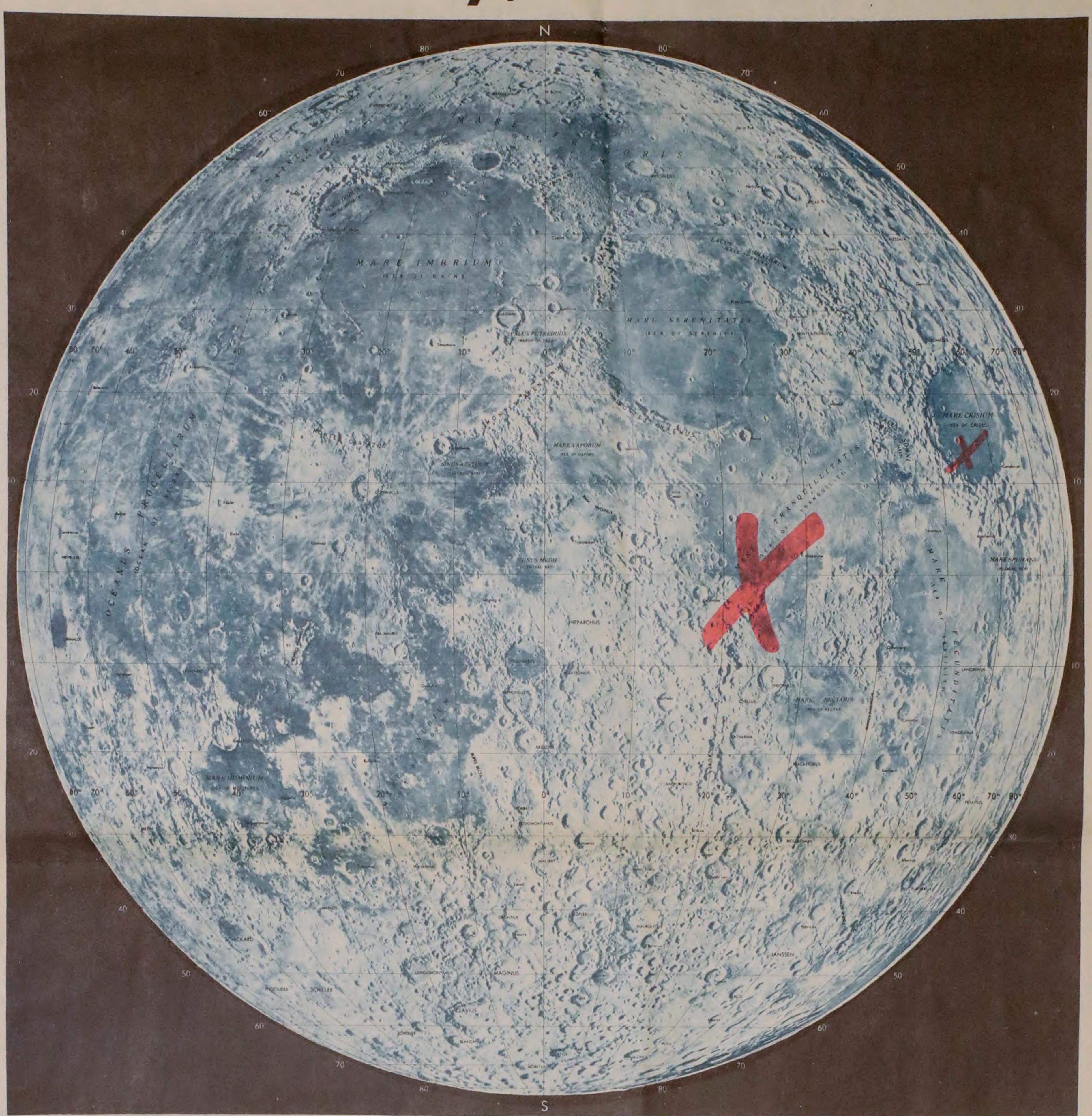
Armstrong family church. "I though it was even poetic. It was well said and just

enough." The 7,000 townspeople plan no celebration until Thursday when the Apollo 11 crew makes its splashdown and is safely aboard "It looked like he was having voking, historic," said the Rev. the recovery aircraft carrier



Associated Press Wirephoto U.S. Servicemen Pause in Saigon to Read of Lunar Landing . . . the whole world pauses to hear of historic landing

## Moon Sunday, World Didn't Stop



'X's' MARK THE SPOTS: Large X Is Site of U.S. Tranquility Base, Smaller One the Site of Russia's Luna 15

### Declare

#### From Page 1

of world attention on a single occasion. Certainly, so many never held their breaths in unison before.

But, looking back, this seemed to me to be no greater miracle than that first, unexpected sighting of a flying machine. \* \* \*

And he landed. And we never expected things to be the same

again. And they weren't. That was 1919. Fifty years. Only 50 years ago. But it would be only eight

more years before the eyes of the world were transfixed on an unknown young man named Charles Lindberg who took off alone, without radio or oxygen to fly by the seat of his pants from New York to Paris.

All day, we would interrupt the junior high class picnic to get reports by squawky radio of sightings at sea as he flew alone those 36 hours. Such excitement! And as the school bus waited for the ferry word

unloaded, and cheered. Everybody cheered.

Out to the east on that vast flat treeless Canadian prairie someone at morning recess noticed an odd speck. It grew, and our first grade excitement grew with it. Probably none of us ever had seen an airplane. But we knew about them. And this had to be Clyde Holbrook, hero of our parts; because he was the only man who had an airplane. It was.

Looking back 42 years, the moon landing was almost anticlimactic. Air travel has

referred to himself and his little plane as "We."

Excitement! Flying the Atlantic soon became commonplace, and we chuckled when a fellow named 'Wrong Way" Corrigan took off from New York with instructions to go west, but flew east to Ireland.

And, about 1930, a great German plane called the Do-X came lumbering across on its the idea. six motors and flew down the Atlantic Coast to Miami, while people lined the beaches and watched, impressed. How could anything so big get off the ground? Even though it did have the style and dimensions of a railroad boxcar, it was exciting. But it flew on into

In 1940, Eastern Airlines put a DC-3 at the service of news reporters and astronomers who were trying to get a glimpse of a rare annular eclipse of the sun at Jacksonville. It was Lindy has landed! We the last chance before the eclipse moved out to sea, and the sky had been overcast all

across the American continent. So they took off the baggage compartment door for the Hayden Plantetarium

telescope and cameras up including small research statwice as high — and left those tions manned by scientists. vapor trails that were such a

phenomenon the reports of them got as much press play as pictures of the eclipse. Exciting! That was 29 years

become so routine, so ago. Only 29 years, and two programmed, so intricately years later the skies over controlled. It will be hard England were laced with vapor again to make heroes like The trails as fighters went up to Lone Eagle, who modestly challenge raiding Nazi bombers. We routinely fly across seas and continents at that B-17's peak altitude.

> Since then, there have been whole series of exciting moments as our men and machines made history — and that horrible, depressing moment when we realized the Russians had moved into outer space while we idly toyed with

Only 24 years from Kittyhawk to Lindbergh, 30 years from Lindbergh to Sputnik I, 12 years from Sputnik to the moon. We won't run out of excitement soon.

SPACE CENTER, Houston (UPI)—A permanent colony for earth men on the moon?

Dr. Thomas O. Paine, the telescope, and we started administrator of the U.S. space straight up in spirals. Up to agency thinks the successful 18,000 feet. No oxygen. The lunar landing of Apollo 11 door open. Cold. We had done astronauts is a "giant step" toward the goal. First must But an Army B-17 took its come additional explorations

> "Mankind is going to establish places of abode outside his home planet—the earth," Paine told a news conference Sunday.

## Man Has Conquered Moon

#### From Page 1

Armstrong, a 38-year-old civilian from the same part of Ohio magnificent job up there.' as the Wright Brothers, backing down a nine-run ladder on the Armstrong said. lunar module, stepping on the yard-across landing pad, and planting his left foot on the

HISTORY WILL mark the time as 10:56:20 p.m. EDT.

That was three and a half days after their blastoff from Cape Kennedy, 6 hours 39 1969 A.D. so historic came at minutes after the Eagle settled on the moon and eight years and two months after John F. to try for such a landing in their lunar lander cut themthis decade.

man-one giant leap for man- left aboard. kind," Armstrong said as he "Eagle has wings," radioed left a 13-by-6 inch footprint Armstrong. showing the zig-zag sole of his spaceboot.

39, an Air Force colonel toward the lunar surface. sometimes known as Dr.

suits the picture blurred.

threw out 1 million dollars landed four miles west of their worth of special equipment that target.

Donald E. "Deke" Slayton, descent. chief of the astronauts, then

here in Houston and all of us in all countries in the entire world that we think you have done a

"Thank you very much," "It's been a long day," added

"Get some rest and get at it tomorrow," Slayton said. The time was 4 a.m. EDT. A

wakeup call from ground was expected about 9 a.m. EDT. THE EVENTS that made the

20th day of July in the year

an almost dizzying pace. It was 1:47 p.m. EDT when Kennedy committed the nation Armstrong and Aldrin riding selves loose from the command

"That's one small step for ship Columbia with only Collins

While Columbia remained in a 69-mile high orbit, Eagle Twenty minutes later Aldrin, began the deliberate drop

At 46,000 feet, Armstrong Rendezvous for his work on fired Eagle's big descent orbital mechanics, joined him. engine. Three hundred miles On television the two men away from the landing site on appeared as shadowy, but clear the southwest edge of the Sea figures, when they were in the of Tranquillity, Armstrong and shade of the Eagle. When the Aldrin began their final apsun shone off their white space proach. In the final minutes before landing, Armstrong took After re-entering Eagle early control of Eagle from the today and before eating and automatic guidance system and bedding down for several hours steered it over a big boulder sleep, Armstrong and Aldrin field. Because of this, they

they will leave behind on the The entire world was tuned in as they made their final

The voices went like this: told the Eagle crew, "I would At 220 feet: "Coming down like to say from all of us down nicely."

At 75 feet: "Looking good."

At 30 feet: "Picking up some

Finally, at 4:17:45 p.m., Armstrong radioed the first words from the moon. "Contact light. Okay. Engine stop. ACA (attitude control assembly) out of detent. Mode controls both auto. Descent engine command override, off. Engine arm off.

413 is in." Ground Controller Charles M. Duke: "Houston. We copy you down, Eagle."

Armstrong: "Houston, Tranquillity Base here. The Eagle has landed.'

THE ASTRONAUTS were anxious to start exploring. Dr. Charles A. Berry, the astronauts' doctor and other flight physicians, decided they were rested enough and gave them permission to delay a fourhour rest period until after the moonwalk

After a snack (their pantry contained a ham salad spread and bacon squares, among several choices) the two men put on their stiff, bulky but their experiments. lifegiving spacesuits.

Armstrong looked out the

It was 238,000 miles from their purposes. landing site back to earth.

moonscape they soon would grain." At another point, he tread, Aldrin said, "It looks like referred to the "sandy sura collection of just about every face." granularities. Just about every commented Aldrin.

variety of rocks you can find. Armstrong reported, "This one-sixth G (gravity) is just moon at the moment Eagle like in an airplane," and when touched down. ground controllers told them there were lots of smiling faces around the world, Armstrong replied, "There are two of them

The Eagle's crew continued in great good humor throughout the day. During their walk on the moon, they could be heard chuckling to one another.

Mrs. Stephen Armstrong, Neil's mother who watched her son on televison from her home in Wapakoneta, Ohio, noticed

"I could tell he was pleased and tickled and thrilled," she

Once both Armstrong and Aldrin got out of Eagle, they walked, hopped and loped over the moon. They talked to the President-saluting when they were through-planted a 3 by 5 foot nylon American flag wired so it would "fly" despite the vacuum they were in, scooped up their samples and set out

asked Aldrin at one point. Eagle's window and said, "We The planting of the flag, assassin of Dr. Martin Luther cannot see any stars out the unlike bygone days, didn't King Jr., did not see the moon window but the earth is bright make the moon America's landing. There is no television territory. Under a treaty signed in his maximum security cell. The blue, white and brown by 80 nations, including the marbled earth ball hung 67 Soviet Union, the moon belongs degrees above the lunar hori- to all men and cannot be zon, a scant three miles away. claimed or used for military

Armstrong found the lunar Looking at the rock-strewn surface was "very, very fine

## Most Locked On TV

By The Associated Press They were shining hours.

Americans landed on the moon and walked its rocky surface while millions of their countrymen locked their attention on television and radio sets on a July Sunday that will live in his-

It was also a Sunday on which hippies romped nude in a California stream, American GIs fought on in Vietnam, babies were born, highways took their toll, cheers rose from excited crowds, a Wyoming woman laughed uncontrollably, Indians broke into a victory dance.

For others, there were periods of reflection and prayer.

In her home at Worcester, Mass., the widow of rocket pioneer Robert H. Goddard sat alone and watched television as man stepped on the moon for the first time.

When a newsman phoned she said, "I'm sorry . . . I'd rather be by myself . . . you under-

A SOFT RAIN fell at Auburn. Mass., where Goddard fired his

first liquid fueled rocket in 1926. In New York, some 3,000 people watched the moon landing at a huge television screen at Kennedy International Airport. Hundreds crowded in front of another big screen at the Time-Life Building across from Radio City Music Hall. An estimated 4,000 watched the three huge TV screens erected in Central Park. Across the nation, in Anaheim, Calif., 80 members of the Soviet Union's track and field team saw the moon landing on

Disneyland TV screen. In Burbank, Calif., an ice cream company, moments after Neil A. Armstrong first stepped on the moon, started dishing out a new flavor called Lunar

Cheese Cake. Trying to "spread his wings," like the lunar module Eagle, a prisoner at the Nevada State Prison, Carson City, tried to scale the fence shortly before Eagle landed on the moon. He stopped after two warning shots

by guards. In the Nevada gaming cities of Las Vegas and Reno, gamblers were asked to halt the action briefly. In Las Vegas, a stripper at the Silver Slipper Casino peeled a simulated space suit, and at Reno's Harrah's Club, they pushed a new drink,

the Moonshot Cocktail. At Farragut State Park in northern Idaho, Boy Scouts were gathered for their 7th annual jamboree. They huddled around radios and a few television sets for news of the exploits of two former scouts, Arm-

strong and Edwin E. Aldrin Jr. The mountain campgrounds of Montana were jammed with people trying to escape the 90-degree heat of the lowlands; most of those with radios listened to news of the Apollo 11

mission. In Philadelphia, a huge crowd gathered in front of historic Independence Hall and cheered when Eagle reached the moon's

surface. In Seattle, where attendance at the Pacific Science Center has been higher during moon-shot week than during the 1962 world's fair, a tiny American flag popped out of the Sea of Tranquility on a mock-up of the

A FEW BLOCKS away, pre-

game ceremonies before an American League baseball gamebetweenthehometownPilot and the Minnesota Twins were interrupted by an announcement of the moon landing. The fans cheered, stood up and sang "America the Beautiful."

A doubleheader between the Chicago Cubs and Phillies in Philadelphia also was interrupted for an announcement of the moon exploit. The fans cheered, offered a silent prayer and sang "God Bless America."

At Meriden, Conn., a man called the Morning Record and complained he couldn't find a single baseball game on radio or television, ending a five-minute harangue that the moon landing was "a lot of nonsense."

In San Quentin Prison, Sirhan Bishara Sirhan, the convicted slayer of Sen. Robert F. Kennedy, watched the televised account of the moon landing in his "Isn't it fun," Armstrong State Prison at Nashville, James Earl Ray, the convicted

> Only 4,000 persons took the Kennedy Space Center tour at Cape Kennedy, Fla., where an estimated crowd of one million were on hand when the Apollo 11 blasted off last Wednesday.

In Honolulu, Fred Kanishiro ordered drinks on the house at his Columbia Inn and toasted variety of shapes, angularities, "Magnificent desolation," the Apollo 11 astronauts: "Hip, hip, hooray."